NEXTIVITY
Smarter by Design

Data Sheet

# CEL-FI QUATRA 4000e

## In-Building Cellular Coverage Solution

**MODEL NUMBERS: Q44-E999CNU & Q41-EECU | Q44-FGSGCNU & Q41-HXCU**

Network Unit (NU)

Coverage Unit (CU)

Solving cellular coverage challenges for enterprise environments, CEL-FI QUATRA 4000e is a multi-carrier Active DAS Hybrid that offers uniform, high-quality cellular signal throughout any building. As an all-digital solution, QUATRA 4000e utilizes category cabling for RF and Power-over-Ethernet architecture to deliver industry-leading signal gain and scalability. In addition to unmatched performance, this cost-effective, carrier-grade system offers fiber expansion capabilities and can be installed within days. QUATRA 4000e is also carrier approved and guaranteed network safe.

**Features and benefits include:**

- Scalable all-digital Active DAS Hybrid for enterprise
- Multi-carrier signal booster for 3G, 4G, and 5G with industry-leading signal gain up to 100 dB
- Lossless RF signal and Power-over-Ethernet (PoE) distribution with easy-to-install category cable architecture
- Site installation flexibility with operator specific donor antenna or small cell signal source
- Remotely monitor and configure with Nextivity WAVE Portal cloud management
- Carrier approved and unconditionally network safe

## Bands

| Bands | Q44-E999CNU | Q44-FGSGCNU | Downlink MHz | Uplink MHz | Technology / Bandwidth | Uplink Power (dBm) | Downlink Power (dBm) |
|---|---|---|---|---|---|---|---|
| 1 | All Ports | | 2110–2170 | 1920–1980 | 5G/4G/3G/20MHz | 22 | 22 |
| 3 | | | 1805-1880 | 1710-1785 | 5G/4G/3G/20MHz | 22 | 22 |
| 5 | | Ports B & D only | 869-890 | 824-845 | 5G/4G/3G/20MHz | 20 | 20 |
| 7 | All Ports | | 2620-2690 | 2500-2570 | 5G/4G/3G/20MHz | 22 | 22 |
| 8 | All Ports | Ports A & C only | 925-960 | 880-915 | 5G/4G/3G/15MHz | 20 | 22 |
| 20 | All Ports | | 791-821 | 832-862 | 5G/4G/3G/20MHz | 20 | 22 |
| 26 | | Ports B & D only | 859-890 | 814-845 | 5G/4G/3G/20MHz | 20 | 20 |
| 28 | | All Ports | 758-803 | 703-748 | 5G/4G/3G/20MHz | 20 | 20 |
| 40 | Port A only | | | 2300-2390 | 5G/4G/3G/20MHz | 22 | 20* |

*Q41-EECU can only go up to 19dBm

## Specifications

| | |
|---|---|
| Frequency Bands | 1/3/5/7/8/20/26/28/40 |
| Relay Channel Bandwidths (MHz) | 5/10/15/20 |
| Network Protocols | WCDMA/LTE/DSS/NR |
| Network Selection | Automatically best available (WAVE Portal for manual setting) |
| Duplex Modes | FDD & TDD |
| # of Relay Bands | 8 max. (2 bands per NU donor port) |
| Independent Operators Supported | 4 max. |
| System Gain | 100 dB max. |
| Enterprise-Grade Echo Cancellation | 30 dB min. |
| Noise Figure (All Bands) | 7 dB max. at ambient |
| Return Loss | -8 dB max. |
| UL Transmit EVM | 8.5 %, 16-QAM with full RB allocation |
| DL Transmit EVM | 8.5%, E-TM3.1 |
| DL Input Level | -100 to -38 dBm |
| RF Interface Impedance (All Ports) | 50 Ω |
| NU to CU Cable | 2x Category Cables ANSI/TIA/EIA 568-B Compliant |
| NU to CU Cable Distance | 328 ft (100 m) (656 ft (200 m) with CEL-FI QUATRA Range Extender) |
| Product Settings & SW Updates | WAVE Portal for Desktop |

## Network Unit Interface

| | |
|---|---|
| Donor Port RF Connectors | 4x 4.3-10 (f) |
| Power Port | IEC C14 |
| Power Control | ON/OFF Switch |
| Cellular Modem Antenna Connector | 1x SMA (f) |
| Cellular Modem GPS Antenna Port | 1x SMA (f) |
| Cellular Modem SIM | Nano SIM (Included with 1-year free service) |
| Status LED (Power/LAN/Modem) | Bi-Color Green/Red |
| Status LED (6x CU Link/SFP+) | Green |
| CU Interface | 2x RJ45 per CU |
| # of CU max. per NU | 6 |
| NU-Hub Expansion | SFP+ |
| # of CU max per CEL-FI QUATRA 4000e Fiber Hub (Q40-EFNU) | 6 |
| Monitoring & Management | LAN RJ45 |
| COMPASS XR and Factory Debug | USB 2.0 Micro-B |

## Coverage Unit Interface

| | |
|---|---|
| Server Antenna RF Connector | 4.3-10 (f) |
| NU Connectivity | 2x RJ45 |
| Status LED (Power) | Bi-Color Green/Red |
| Status LED(NU Link/Cable Link) | Green |
| Factory Debug Only | USB 2.0 Micro-B |

## Compliance

| | |
|---|---|
| 3GPP | TS 25.143 Rel 13 & 3GPP TS 36.143 Rel 13 |
| CE | Compliant RED 2014/53/EU |
| ICASA | Yes |
| OFCOM | IR2102 & UKCA |
| RoHS3 | EN 63000:2018 |

## Power

| | |
|---|---|
| Input Voltage | 85-264 V |
| Input Current | 2.45 A |
| Power Consumption | 480 W max. |
| Power Cable | Type C (EU) or Type I (AUS) or Type G (UK) to IEC C13 |
| Power Supply Cable | 18 AWG |
| Power Supply Cable Length | 6 ft (1.8 m) |
| Coverage Unit Power | PoE+ per IEEE 802.3at |

## Environmental

| | |
|---|---|
| Operating Temperature | 32 to 104 °F (0 to 40 °C) |
| Storage Temperature | -31 to 158 °F (-35 to 70 °C) |
| Heat Dissipation | Passive Convection |
| Surface Temperature | 111°F (44 °C) max. at ambient |
| Non-condensing Humidity | 0 to 95% |
| Ingress Protection Rating | IPX0 |

## Mechanical

| | Network Unit | Coverage Unit |
|---|---|---|
| Main Unit Dimensions | 18.1 x 11.0 x 3.5 in (461 x 281 x 89 mm) | 13.0 x 11.6 x 2.5 in (330 x 295 x 64 mm) |
| Main Unit Weight | 19.4 lbs (8.80 kg) | 11.3 lbs (5.13 kg) |
| Mounting | Wall | Wall/Ceiling* |

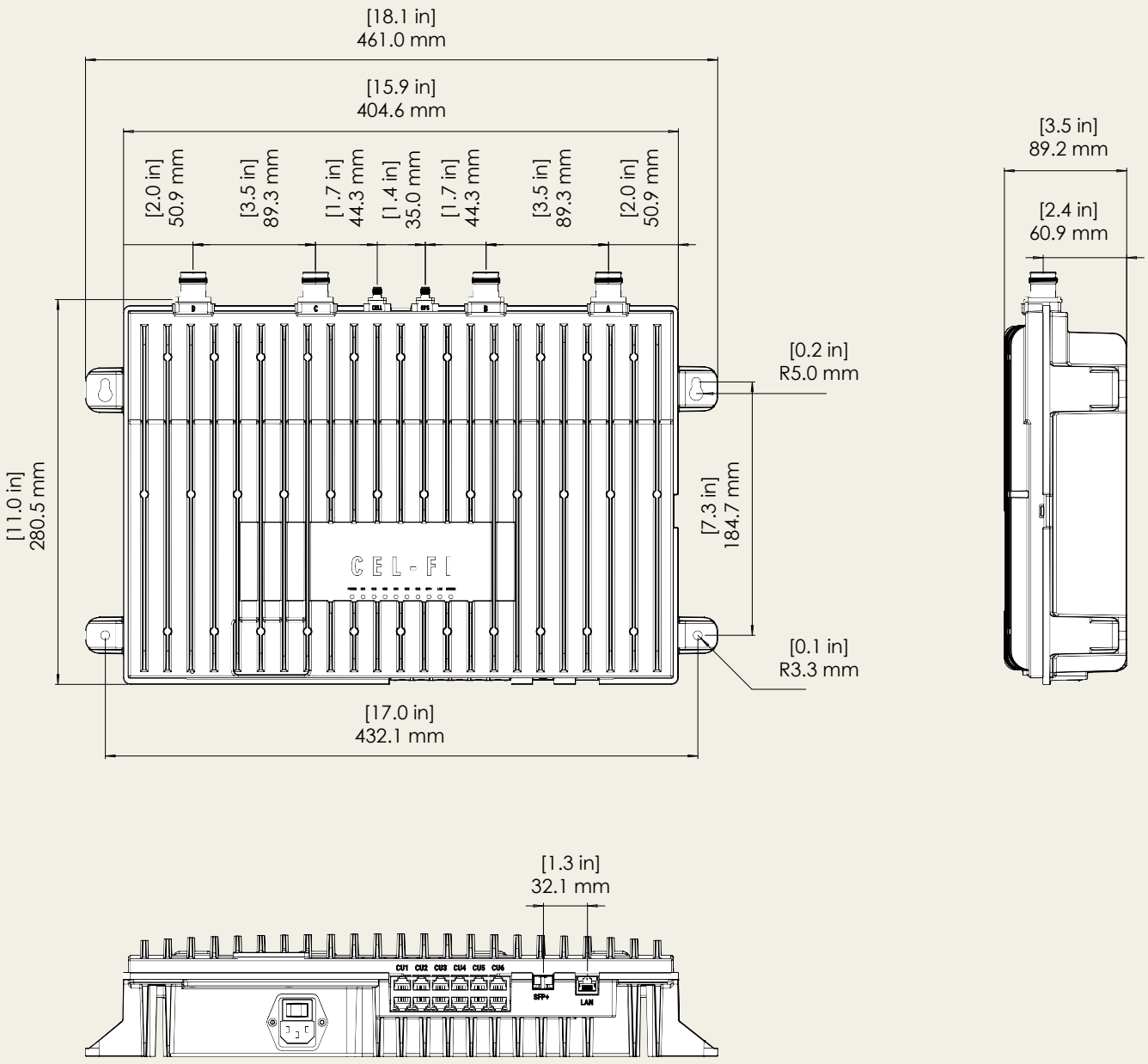
*CMA-100-100 sold separately for ceiling mount

## Ordering Information

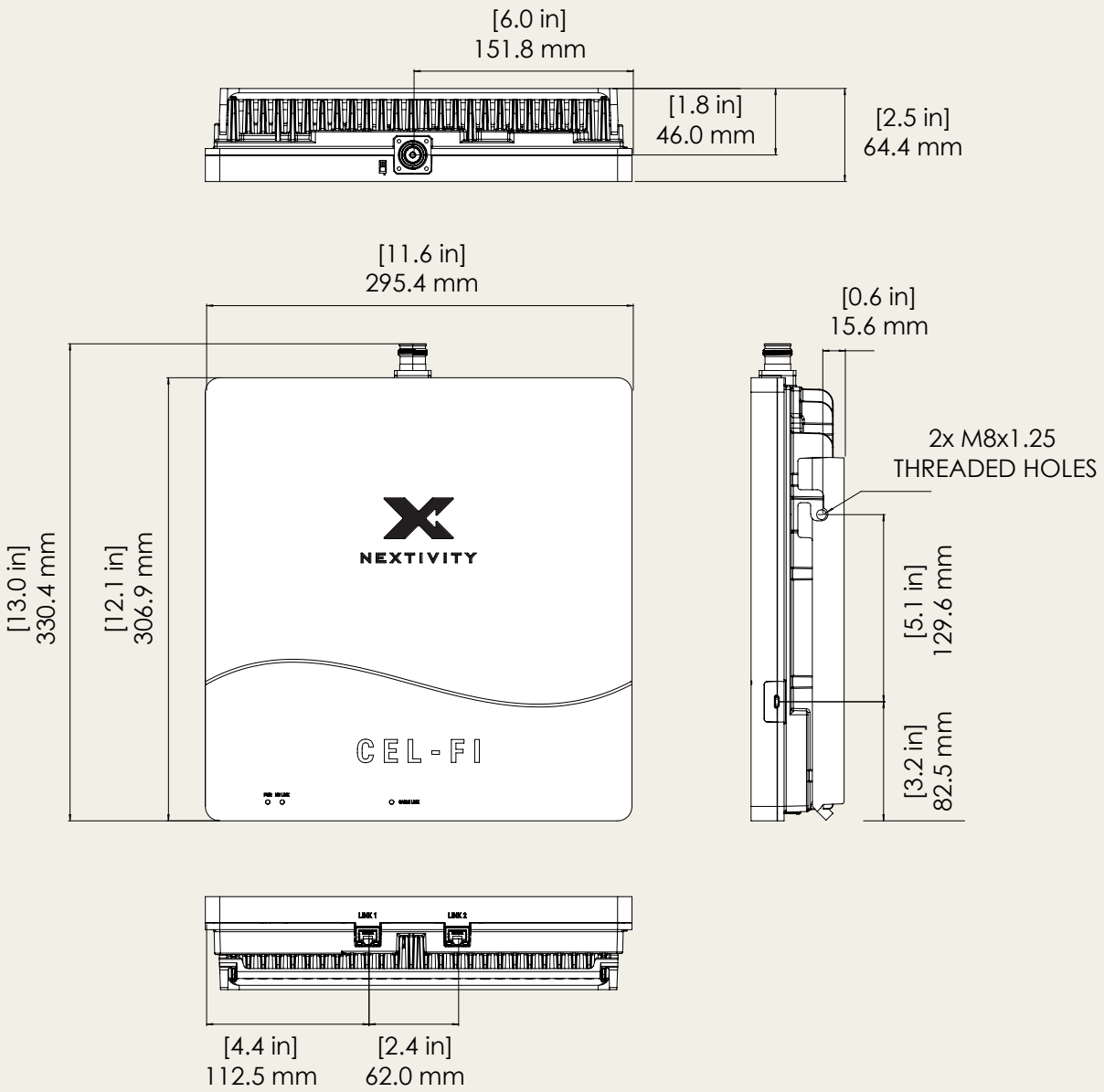
| M/N | Q44-E999CNU | Q44-FGSGCNU | Q41-EECU | Q41-HXCU |
|---|---|---|---|---|
| Region | EMEA | EMEA/APAC | EMEA | EMEA/APAC |
| Frequency Bands | 1/3/7/8/20/40 | 1/3/5/7/8/26/28/40 | 1/3/7/8/20/40 | 1/3/5/7/8/26/28/40 |
| Box Contents | Network Unit | | Coverage Unit | |
| | 1x AC Power Cable | | 4x Mounting Screws | |
| | 4x Mounting Screws | | 4x Drywall Anchors | |
| | 4x Drywall Anchors | | 2x Eye Bolt w/ nuts | |
| | 1x Cellular Modem Antenna | | | |
| Shipping Dimensions (in (mm)) | 23.9 x 14.7 x 5.6 in (607 x 374 x 141 mm) | | 18.2 x 15.8 x 4.6 in (462 x 402 x 116 mm) | |
| Shipping Weight (lbs (kg)) | 22.5 lbs (10.21 kg) | | 13.6 lbs (6.2 kg) | |
| Harmonized Tariff Schedule (HTS) | 8517.18.00.50 | | | |
| Export Control Classification Number (ECCN) | EAR99 | | | |

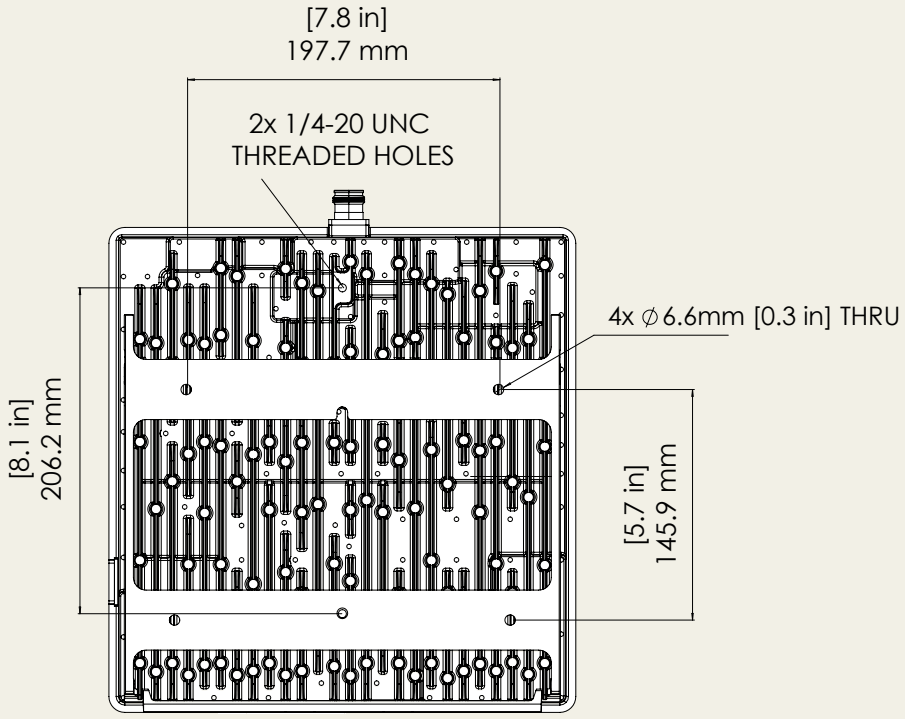
Note: Product specifications are subject to change without prior notification.

# Network Unit (NU)

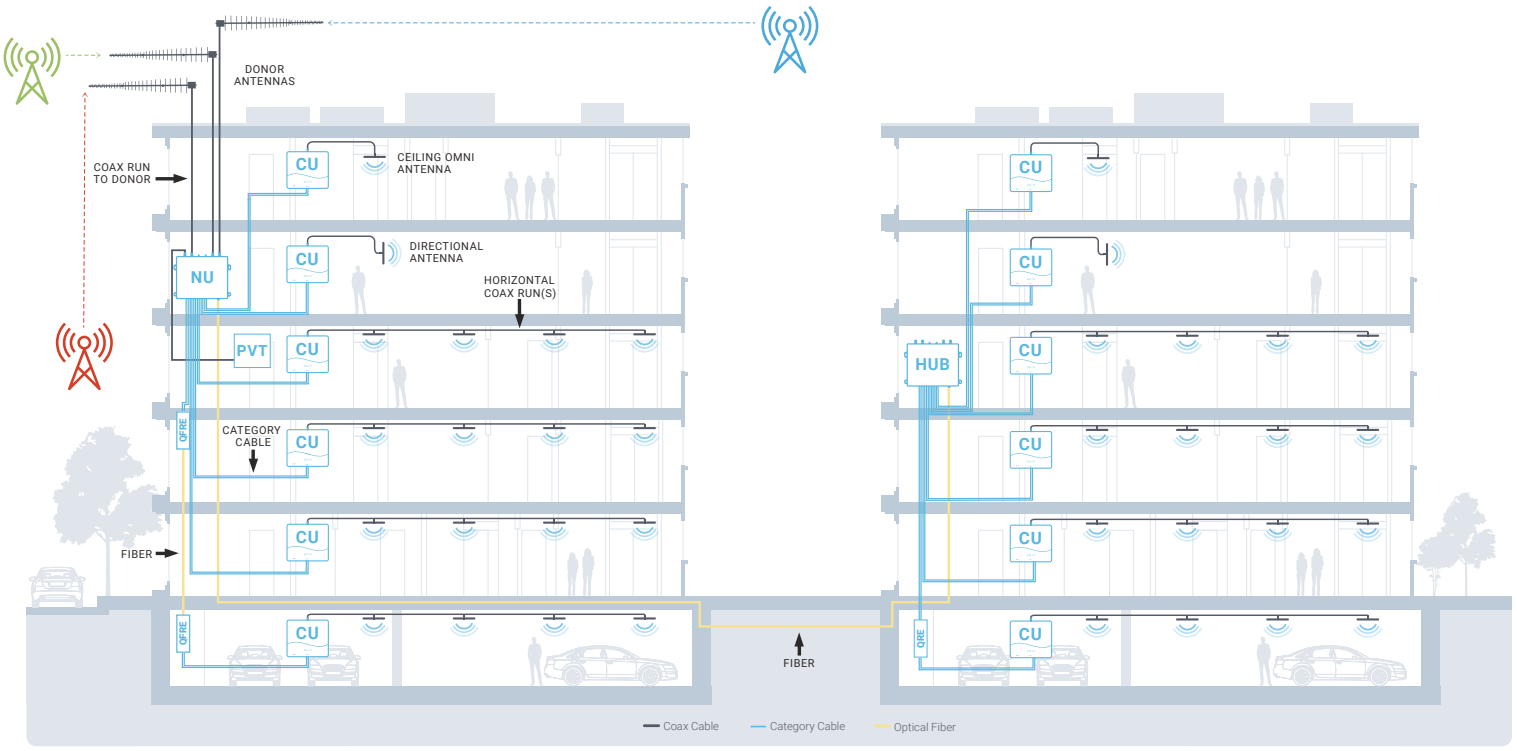


## Coverage Unit (CU)



# Two-Building Diagram: 1 NU to 12 CUs with CEL-FI QUATRA 4000e Fiber Hub




Note: Product specifications are subject to change without prior notification.

NEXTIVITY
Smarter by Design

nextivityinc.com/quatra4000e

16550 West Bernardo Drive, Bldg. 5, Suite 550 | San Diego, CA 92127 | www.nextivityinc.com

Copyright © 2025 by Nextivity, Inc., U.S. All rights reserved. The Nextivity and CEL-FI logos are registered trademarks of Nextivity, Inc.
All other trademarks or registered trademarks listed belong to their respective owners. Rev25-0128